CONTENTS OF VOLUME 29

NUMBER 1

J. A. Hudson	III	Editorial
Z. Şen and E. A. Eissa	1	Rock quality charts for log-normally distributed block sizes
E. Detournay and P. Defourny	13	A phenomenological model for the drilling action of drag bits
S. Talebi and R. P. Young	25	Microseismic monitoring in highly stressed granite: relation between shaft-wall cracking and *in situ* stress
G. I. Ofoegbu and J. H. Curran	35	Deformability of intact rock
C. Lee and R. Sterling	49	Identifying probable failure modes for underground openings using a neural network
International Society for Rock Mechanics Document **J. R. Enever, F. Cornet and J. C. Roegiers** (Commission Members)	69	International Society for Rock Mechanics. Commission on Interpretation of Hydraulic Fracture Records
Technical Notes		
J. K. Odum, F. T. Lee and J. W. Stone	73	Adaptations to standard drilling equipment and procedures for a USBM overcore *in situ* stress determination under unique conditions
J. Zhao and E. T. Brown	77	Thermal cracking induced by water flow through joints in heated granite
P. Jouanna	83	Access to stochastic fractured media characteristics by harmonic hydraulic pumping
Geomechanics Abstracts	1A	

NUMBER 2

S. L. Huang, S. M. Oelfke and R. C. Speck	89	Applicability of fractal characterization and modelling to rock joint profiles
F. D. Cuisiat and B. C. Haimson	99	Scale effects in rock mass stress measurements
A. Bro	119	The influence of stick–slip on block reaction curves
W. J. Boyle	133	Interpretation of plate load test data
International Society for Rock Mechanics. Commission on Testing Methods **C. H. Dowding** (Coordinator)	143	Suggested method for blast vibration monitoring
Technical Notes		
J. A. Hudson	157	Atlas of rock engineering mechanisms. Part 2—slopes
M. H. Sadd, Lun Qiu, W. G. Boardman and A. Shukla	161	Modelling wave propagation in granular media using elastic networks

A. Bro	171	Stick–slip behaviour of smooth joints
A. Bro	179	Failure of stepped joints: an analysis and comparison with a measured failure geometry
A. G. Meyers and S. D. Priest	187	A microprocessor controlled pump for triaxial cell pressure control
Geomechanics Abstracts	73A	

NUMBER 3

C. Fairhurst	193	John C. Jaeger—Memorial Dedication Lecture (Introduction)
Jaeger Memorial Dedication Lecture		
N. G. W. Cook	198	Natural joints in rock: mechanical, hydraulic and seismic behaviour and properties under normal stress
B. Amadei and E. Pan	225	Gravitational stresses in anisotropic rock masses with inclined strata
P. P. Nelson and S. D. Glaser	237	Acoustic emissions produced by discrete fracture in rock. Part 1—Source location and orientation effects
S. D. Glaser and P. P. Nelson	253	Acoustic emissions produced by discrete fracture in rock. Part 2—Kinematics of crack growth during controlled Mode I and Mode II loading of rock
S. Saeb and B. Amadei	267	Modelling rock joints under shear and normal loading
S. Yazici and P. K. Kaiser	279	Bond strength of grouted cable bolts
P. K. Kaiser, S. Yazici and J. Nosé	293	Effect of stress change on the bond strength of fully grouted cables
Technical Note		
G. Beer and G. Lang	307	A graphical post-processor for computer-aided design of mine excavations
Corrigendum	323	
Geomechanics Abstracts	139A	

NUMBER 4

J. C. Stormont and J. J. K. Daemen	325	Laboratory study of gas permeability changes in rock salt during deformation
A. J. Jupe, A. S. P. Green and T. Wallroth	343	Induced microseismicity and reservoir growth at the Fjällbacka Hot Dry Rocks project, Sweden
M. Stöck and Hp. Schad	355	Modelling of stress distributions in rock drill heads
P. E. Senseny, F. D. Hansen, J. E. Russell, N. L. Carter and J. W. Handin	363	Mechanical behaviour of rock salt: phenomenology and micromechanisms

A. P. Peirce, S. Spottiswoode and J. A. L. Napier 379 The spectral boundary element method: a new window on boundary elements in rock mechanics

J. Noorishad, C. F. Tsang and P. A. Witherspoon 401 Theoretical and field studies of coupled hydromechanical behaviour of fractured rocks—1. Development and verification of a numerical simulator

J. Rutqvist, J. Noorishad, O. Stephansson and C. F. Tsang 411 Theoretical and field studies of coupled hydromechanical behaviour of fractured rocks—2. Field experiment and modelling

International Society for Rock Mechanics Documents

T. R. Stacey (Co-ordinator) 421 ISRM Commission on Rock Failure Mechanisms in Underground Openings. Standard Data Collection Form for Describing Failures in Underground Openings

P. K. Kaiser and S. Yazici (Co-ordinators) 431 ISRM Commission on Rock Failure Mechanisms in Underground Openings. Computerized Rock Mass Failure Data Collection System

Geomechanics Abstracts 205A

NUMBER 5

R. Pusch and R. Stanfors 447 The zone of disturbance around blasted tunnels at depth

F. J. Santarelli, D. Dahen, H. Baroudi and K. B. Sliman 457 Mechanisms of borehole instability in heavily fractured rock media

G. Li, K. H. R. Moelle and J. A. Lewis 469 Fatigue crack growth in brittle sandstones

S. Lin, B. N. Whittaker and D. J. Reddish 479 Application of asymmetrical influence functions for subsidence prediction of gently inclined seam extractions

S. L. Crouch and S. Selcuk 491 Two-dimensional direct boundary integral method for multilayered elastic media

A. J. Hyett, W. F. Bawden and R. D. Reichert 503 The effect of rock mass confinement on the bond strength of fully grouted cable bolts

Technical Note

W. F. Bawden, A. J. Hyett and P. Lausch 525 An experimental procedure for the *in situ* testing of cable bolts

Geomechanics Abstracts 273A

NUMBER 6

L. Jing, E. Nordlund and O. Stephansson 535 An experimental study on the anisotropy and stress-dependency of the strength and deformability of rock joints

S.-Q. Kou and A. Rustan 543 Burden related to blasthole diameter in rock blasting

S. I. Al-Ameen and M. D. Waller 555 Dynamic Impact Abrasion Index for rocks

B. Amadei and T. Illangasekare 561 Analytical solutions for steady and transient flow in non-homogeneous and anisotropic rock joints

I. Vardoulakis, K. R. Shah and P. Papanastasiou 573 Modelling of tool–rock shear interfaces using gradient-dependent flow theory of plasticity

Technical Notes

S. Tomecka-Suchon and F. Rummel 583 Fracture-induced resistivity changes in granite

Y. Du and A. Aydin 589 The role of compression-induced tension in the propagation of hydrofractures: implications for *in situ* stress measurements at shallow depths

Geomechanics Abstracts 339A